

MODIS Technical Team Meeting
Thursday, June 12, 2003
GSFC Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Wayne Esaias, Ed Masuoka, Bill Barnes, Bob Barnes, Shaida Johnston, Dorothy Hall, Eric Vermote, and Steve Kempner, with Yolanda Harvey taking the minutes.

1.0 Upcoming Events

- MODLand Workshop, July 15-16, Baltimore-Washington International Airport (BWI) Marriott.
- IGARSS 2003, July 21-25, 2003, Toulouse, France (abstracts deadline past).
<http://www.igarss03.com/>
- 10th International Symposium on Remote Sensing by The International Society for Optical Engineering (SPIE). September 8-12, 2003, Barcelona, Spain (abstracts deadline past). <http://www.spie.org/info/rs>
- MODIS Science Team Meeting, September 30 – October 3, 2003, location not yet set.

2.0 Meeting Minutes

2.1 General

Salomonson reported that he is still pursuing information regarding the presentation on MODAPS for the Earth Science Subcommittee for Information Systems meeting to be held July 9-10, 2003.

Bill Barnes reported that Fran Stetina is making a video on MODIS and the direct downlink people for Jim Dodge. The video will be put onto a CD and will include interview and background material on MODIS. He also reported that there was an article in Space News on the Aqua satellite's first anniversary. The article didn't mention any instruments by name, though.

Esaias reported that at least one commercial company is consistently using MODIS data for his value-added products that support the fishing industry. These products are overlaid on temperature and other data products, and they get MODIS data in near real time.

Salomonson reported that Barbara Conboy has been looking into the program that was ostensibly designed to provide royalties to innovative programmers, and has found that the list submitted for MODIS is undergoing scrutiny at NASA Headquarters. Esaias said that he thinks this is a good program because it rewards a group of people who don't otherwise get a lot of recognition, and who are creating innovative programming products.

Esaias reported that people from Discovery Magazine are doing an article on the MODIS Net Primary Productivity (NPP) movie, and will be coming to the Goddard in August to do interviews and take pictures. He also reported that Mark Abbot has set the date for the Oceans workshop in September; it will be at the end of the Labor Day week (week of September 1, 2003).

Masuoka reported that Nazmi El Saleous is providing MODIS imagery to Lisa Ritter at National Geographic Magazine. He is working on an article on the Pantanal wetland region in South America. National Geographic Magazine is looking to compare a wet season (March – June) to the dry season (August – September), as seen from space.

Salomonson asked about the status of the Japanese GLI instrument, and King said that it is launched, there are images available, and so far as he knows, it's working well.

King reported that there is a press conference planned at NASA HQ concerning MODIS fires. It will happen the week of IGARSS; Justice will be speaking, as well as someone from the USDA Forest Service. They're looking for a third person to speak from a NASA perspective. They will also highlight an interesting visualization by SBS.

2.2 Instrument Status

2.2.1 Terra MODIS

Salomonson reported on the Solar Diffuser issue. He said that he called Paul Ondrus, who wants to proceed with the formalities of implementing a fix for the door. The Oceans group is advocating having the solar diffuser door open as soon as possible while even while studies of the problem continue. Bill Barnes said that he talked to Chad Salo, who said that though we need Ondrus' approval, we have put in a change in the software that will keep the door open should the spacecraft go into a safe hold. A review and approval meeting is to be scheduled soon. Esaias noted that the patch to the software makes sense. Salomonson said that everything on this subject seems to be coming together, and should be resolved well.

Salomonson said that another factor in this issue is that the MOBY buoy was damaged. Esaias reported that the middle arm is dangling (showed pictures). MOBY has arms at three different depths – 1.5 meters, 5 meters, and 10 meters. It is the 5-meter arm that is broken and hanging down; when it broke, it also tore several optical fibers from the top arm, so we're only getting data from the bottom arm. All three arms are normally used to make an attenuation term (for calibration); so lacking that term, the uncertainty of ocean color data products goes up. However, the data is still useful. He said that he's not sure what broke the arm; it could have broken from current changes, but the damage also could have been caused by a boat (they found white paint on the arm). This problem will be fixed in July when it is pulled out and replaced with another MOBY unit, so it's not a permanent problem. Unfortunately, because of this, we'll have to throw out a lot of data, which is why the Oceans group wants the Solar Diffuser door working again.

2.2.2 Aqua MODIS

No report.

2.3 DAAC

Kempler reported that Aqua data are going well at 1x, and Terra is at 3.25x for June (including reprocessing). They will be sending the reprocessing data to MODAPS as soon as the floodgates are opened. Kempler asked Esaias if Gary Alcott had contacted him about deleting some Oceans data, and Esaias said yes, and that he needs to send Kempler an email approval.

Salomonson noted that several granules of Level 0 Aqua data (4 hours) were misidentified as Terra data. Masuoka said that his understanding is that the problem was identified and recovered from right away. Kempler said that he would send a detailed explanation of the problem to Johnston. Johnston noted that it would be a good idea to remove as many manual procedures as possible to avoid events like this in the future. Masuoka pointed out that this is the first time since the launch of EOS Terra that this has happened. He said that SDST can make a change that takes care of this issue after the August delivery geolocation that will speed up the PGE and is currently being developed. Kempler said that he doesn't consider it to be a major issue.

2.4 MODAPS

Masuoka asked about changes to the algorithms for the Aqua reprocessing effort, and Johnston said that we will just be going back and cleaning up the last year of data, so there will not be any major changes to PGEs for the first Aqua reprocessing. Esaias said that he wants to do a complete reprocessing of Aqua Oceans data in that effort starting in November. Masuoka said that there will be a complete reprocessing for all three disciplines at that time.

2.5 Oceans

Esaias reported that he participated in a useful teleconference on the ocean color Climate Data Records (CDRs) on Tuesday (June 10, 2003) morning. The University of Miami had a disk/computer problem that caused a delay in the analysis. They changed the code to make it more consistent with that of SeaWiFS; they changed the Sun-Earth distance second term; and they are processing with real M_1 's today. The first run shows that the secret is not in glint correction, so they are hoping that the analysis of the Solar Diffuser degradation function will make the difference. They are also looking at a couple of other things. The delays have put them into a day-by-day slip, so right now next Friday's delivery (June 20, 2003) can't be committed to, but it's not yet out of the question. Esaias said that he will call Chuck Trees and Paula Bontempi. He also noted that the changes in the code are visible on the Oceans website. Vermote said that most of the oscillations that Land sees by looking at desert calibration targets are in the noise of the calibration method ($\pm 1\%$), so the Land group is fine with the calibration. Esaias noted that they found a typo in the second order term, but it's not a big deal, and they can safely ignore it. Miami is working on a significant change at data-day 900; the change is equal to the difference between SeaWiFS and MODIS. Esaias said that the change shows up significantly in all the Oceans bands. Also, no one seems to be able to get of the updated PGE09 and PGE10 from Coronado's site. Masuoka said that he would check on the PGEs. (Note: Masuoka did check and the new versions of PGE09 and PGE10 were posted on Coronado's site on Friday, June 13, 2003. Coronado said that other PGEs should go up quickly now that this process has been worked out with PGE09 and PGE10.)

2.6 Cryosphere

Hall asked about snow browse products via the EDG, and Masuoka said that the method should be working by now. Hall said that she was on the EDG yesterday (June 11, 2003) looking for sea ice data, and a browse product wasn't available, but also that snow should have been the first Cryosphere product to have a browse. Masuoka said that he would check on those PGEs and find out which were tested. Hall said that it's important, because the alternative is to get them via FTP just to check for suitability to order, which is a very time-consuming process. (Note: At

the Monday, June 16th meeting with MODAPS, Land approved the load of the Level 2 snow browse production. Land will review the results of the next science test before approving the load of the PGE that produces the browse for the Level 3 daily snow product.)

Hall asked about the status of ETM+ and wondered whether the images would be able to be fixed. Johnston said that the images can't be fixed, but they may be able to get the scan line corrector fixed.

2.7 Atmospheres

King reported that volume one of the Terra Data Products Handbook is finished and will be shipped later this week. It has been completed updated and looks good. It will automatically get sent to MODIS Team members, but he wasn't sure how it would get to other associated people.

King reported that there has been a request to conduct a course on MODIS and HDF in Buenos Aires, similar to the one recently held in Italy. There would also be a brief overview of Aura. He said that he's not sure about dates, yet.

King showed a picture of the planet made of compiled MODIS data, including SST, clouds, some fires, and other data sets. He indicated that there was the possibility of using other data sets to make the picture, but eventually it could be used as the cover for the 2004 EOS calendar.

King reported that the cover of part one of the IEEE Geoscience and Remote Sensing letters featured an image of MODIS data, and included an article by Bo Cai Gao.

King reported that the Atmospheres group has installed a new processing machine that is four times faster than Windhoek; he also said that it receives data from MODAPS production.

King reported that the Atmospheres new L2 product code was delivered today, the ESDTs were assigned, and it is going into testing. This new software produces sub-sampled L2 data for a few important parameters of interest, and will fit onto a CD, making it very convenient and enable users to work with lower data volume. Included will be some visualization and extraction tools that don't require IDL (since it is prohibitively expensive, meaning that many don't have access to it). The product can be inserted into Collection 4 reprocessing. Masuoka noted that SeaWiFS paid for a runtime IDL license, so anyone can use their software, which was developed in IDL. King said that that is what our side is trying to do. The product is ready for integration by SSTG at SDST. The product hasn't been advertised yet, but needs to be. The code will be put into the reprocessing stream soon since there is still a year of data left to reprocess.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 King and Kempler to work together on getting ESDTs for the new Atmospheres L2 data product.

Status: Open.

3.2.2 Kempler to coordinate with Oceans group on creating documentation for the DAAC on the new Oceans L1A data subsets.

Status: Open.

3.2.3 Tech Team to further discuss TRW using MODIS data for validation of the NPP/NPOESS production process.

Status: Open.

3.2.4 PIP to develop list of items to go into work plan for the new contract (EMD).

Status: Open.

3.2.5 Ed Masuoka to invite a NOAA delegate to the weekly MODIS Tech Team meetings or the PIP meetings.

Status: Open. Masuoka sent the invitation to Gene Legg and Bruce Ramsay.

3.2.6 Wolfe to work with Hucek on the different approaches to aggregating the Aqua MODIS focal planes for geolocation purposes.

Status: Open.

3.2.7 Xiong to email an explanation of MODIS' once-per-month roll maneuver (as it affects rvs) to Salomonson and Tom Pagano.

Status: Open.